



PATENT APPLICATION

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q67795

Kiyoo MORITA

Appln. No.: 10/020,956

Group Art Unit: 3654

Confirmation No.: 1153

Examiner: Sang K. Kim

Filed: December 19, 2001

For: TAPE REEL

SUBMISSION OF APPEAL BRIEF

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an Appeal Brief. A check for the statutory fee of \$500.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

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Attorney Docket No.: Q67795



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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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U.S. Application No. 10/020,956

I. REAL PARTY IN INTEREST

The real party in interest is Fuji Photo Film Co., Ltd., of 210 Nakanuma, Minami-Ashigara-shi, Kanagawa, Japan by virtue of an Assignment executed by Kiyoo Morita on December 12, 2001, and filed in the U.S. Patent and Trademark Office Action on December 19, 2001.

II. RELATED APPEALS AND INTERFERENCES

There are no other applications, patents, appeals, interferences, prior and pending appeals are judicial proceedings known to Appellant, the Appellant's legal representative, or the Assignee that may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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III. STATUS OF CLAIMS

Claims 1-3 are all the claims presently pending in the application. Claims 1-3 stand finally rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,807,826 (Iwahashi).

IV. STATUS OF AMENDMENTS

An Amendment Under 37 C.F.R. § 1.116 was filed on December 2, 2004 to amend claim 1 so that the second occurrence of “outer peripheral surface of the hub” is properly referred back to. The Claims Appendix of this Brief includes the amended version of claim 1.

In an Advisory Action dated December 30, 2004, the Examiner states that the Amendment will be entered on appeal because it merely corrects an informality in claim 1.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Claim 1 - An apparatus consistent with the present invention relates to a tape reel 10 comprising a hub 11 having a cylindrical shape; and an upper flange 12 and a lower flange 13 respectively provided at an upper end and a lower end of the hub (see, for example, the paragraph bridging pages 7 and 8, and Figures 1 and 2). A magnetic tape 20 is wrapped around an outer peripheral surface 11a of the hub 11 (see, for example, page 9, lines 6-10; and Fig. 3).

Further, the tape reel 10 includes means for gradually decreasing a distance between the upper flange and the lower flange outside the outer peripheral surface of the hub, as the magnetic tape 20 is being wrapped around the hub, by deflecting the upper and lower flanges towards each other over an entire circumference thereof (see, for example, the paragraph bridging pages 9 and 10; the first full paragraph on page 10; page 10, lines 12-25; and Fig. 3). As disclosed in the first full paragraph of page 10 of the subject application, in order to obtain the desired deformation, the rigidity of the hub 11, manner of fixing the upper and lower flanges 12, 13 to the hub, the material of the tape reel 10 and so on are established. Preferably, the rigidity is determined by setting the thickness T of the outer peripheral wall 11a, by setting shape and thickness of the center part 11b and the support walls 11c, and so on.

Claim 2 - As shown in Fig. 2, a lower face of the upper flange 12 is inclined upwardly towards an outside in a radial direction of the tape reel, and an upper face of the lower flange 13 is inclined downwardly towards the outside in the radial direction of the tape reel, when the magnetic tape is unwrapped (see page 8, lines 9-14; and Fig. 2).

Claim 3 - Claim 3 further specifies a distance between an upper end of an outermost layer of the magnetic tape in a width direction and a lower face of the upper flange being defined as H3, and a distance between a lower end of the outermost layer of the magnetic tape in the width direction and an upper face of the lower flange being defined as H4, the distances H3 and H4 always remaining within a certain range such that the magnetic tape does not contact either of the upper and lower flanges (see, for example, Fig. 3 and page 9, line 13 through page 10, line 11).

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VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. patent No. 4,807,826 (Iwahashi).

VII. ARGUMENTS

A. Claim 1

To support a conclusion that a claimed invention lacks novelty under 35 U.S.C. § 102, a single source must teach all of the elements of a claim. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986). A claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). A single source must disclose all of the claimed elements arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). A proper anticipation rejection requires that every element of the claim be found “in a single prior art reference.” *See In re Robertston*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950 (Fed. Cir. 1999). For anticipation to exist, there must be no difference between the claimed invention and the reference disclosure, as that reference would be understood by one of ordinary skill in the art. *See Scripps Clinic & Research Found. v. Genentech, Inc.*, 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991); *see also, Crown Operations Intn’l, Ltd. v. Solutia, Inc.*, 289 F.3d 1367, 62 U.S.P.Q.2d 1917 (Fed. Cir. 2002). Further, “an anticipating reference must describe the [claimed] subject matter with sufficient clarity and detail to establish that the subject matter existed and that its existence was recognized by persons of ordinary skill in the field of the invention.” *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 545, 48 U.S.P.Q.2d 1321, 1328 (Fed. Cir. 1998) (citing *In re Spada*, 911 F.2d 705, 708, 15 U.S.P.Q.2d 1655, 1657 (Fed. Cir. 1990)). Rejections under 35 U.S.C. § 102 are proper

only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the cited reference must clearly and unequivocally disclose every element and limitation of the claimed invention.

In the rejection under § 102(b), the Examiner alleges that Iwahashi shows the tape reel with a hub having a cylindrical shape; and an upper flange 17 and a lower flange 10, respectively, provided at an upper end and a lower end of the hub, wherein a magnetic tape is wrapped around an outer peripheral surface 11 of the hub, and means for gradually decreasing the distance between said upper flange 17 and said lower flange 10 outside an outer peripheral surface of the hub, as said magnetic tape is being wrapped around said hub (when the magnetic tape wrapping force in a radial direction is so great that both the hub 11 and the inner rib 12 are deformed which would inherently deflect both flanges), by deflecting the upper and lower flanges toward each other over an entire circumference thereof, as allegedly shown in FIGs. 1 and 2. Moreover, the Examiner alleges that Iwahashi shows the same structural elements except that it was designed to prevent the outer cylindrical section from radially bending inward. However, the Examiner alleges that when the magnetic tape wrapping force in a radial direction is greater than the hub and the inner rib structures, then it would inherently deform both the hub and the inner hub, thus causing both flanges to deflect as the tape is wound around the hub.

For the following reasons, Appellant respectfully disagrees with the Examiner's position and analysis. First, claim 1 recites, *inter alia*, "means for gradually decreasing a distance between said upper flange and said lower flange outside the outer peripheral surface of the hub, as said magnetic tape is being wrapped around said hub, by deflecting said upper and lower

flanges towards each other over an entire circumference thereof.” Clearly, unless an element performs identically to a function as it is specified in the claim, it cannot be an equivalent for the purposes of 35 U.S.C. § 112, sixth paragraph. MPEP § 2184 (citing *Penwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 4 USPQ2d 1737 (Fed. Cir. 1987)). Here, there is nothing whatsoever in Iwahashi, nor has the Examiner shown any teaching or suggestion, that Iwahashi’s structure performs the above-noted exact function as set forth in Appellant’s claim 1.

While Iwahashi discloses a tape reel in FIGs. 1 and 2 which appears to have a somewhat similar structure to that of the subject tape reel, Iwahashi specifically discloses that the ribs 21, which extend between the outer and inner cylindrical sections 11 and 12, “may successfully prevent the inner (sic) cylindrical section 11 from bending radially inward so as not to cause stress in a tape wound around the tape reel section.” (See column 5, lines 30-34). Further, in column 5, lines 53-56, Iwahashi discloses that “the ribs 21 also prevent the outer cylindrical section 11 from radially and inwardly bending by the pressure exerted from the tape wound therearound.” Thus, not only is there no disclosure of the exact function set forth in Appellant’s claim 1, but the reference actually specifically teaches that it does not perform that function, i.e., it prevents the subject function of the present invention.

The Examiner apparently takes the position that, because of the structure disclosed in Iwahashi, when the magnetic tape wrapping force in a radial direction is greater than the hub and the inner rib structures, then it would inherently deform both the hub and the inner hub, thus causing both flanges to deflect as the tape is wound around the hub. However, to establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is

necessarily present in the thing described in the reference, and that it would be so recognized by a person of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. (See MPEP 2112).

In response to the arguments Appellant submitted on July 16, 2004, the Examiner alleges that Appellant has failed to identify any structural differences between Appellant's claimed invention and Iwahashi. The Examiner further maintains that the structure was determined as noted in the body of the rejection, and that the function corresponds to that structure (when the magnetic tape wrapping force in a radial direction is so great that the hub (11) and the inner rib (12) are deformed which would inherently deflect both flanges) which the Examiner alleges is the same as Appellant's claimed invention. However, Appellant vigorously disagrees with the Examiner's analysis because before even addressing issue of equivalence or non-equivalence of a prior art element, unless an element performs identically to a function as it is specified in the claim, as noted above, it cannot be an equivalent for the purposes of 35 U.S.C. § 112, sixth paragraph. In this case, the Examiner's position that when a magnetic tape wrapping force in a radial direction is so great that both the hub and the inner rib are deformed which would inherently deflect both flanges is sheer speculation and totally unreasonable in view of the actual disclosure of Iwahashi. In other words and as noted above, the reference specifically teaches that it does not perform Appellant's recited function, i.e., it prevents the specific function recited in Appellant's claim 1.

In the present case, the Examiner appears to set forth a hypothetical situation where the magnetic tape wrapping force in a radial direction is “greater than the hub and the inner rib structures” so that the magnetic tape wrapping force would inherently deform both the hub and the inner hub. However, as noted above, Iwahashi expressly discloses that the ribs 21 prevent the outer cylindrical section from radially and inwardly bending by the pressure exerted from the tape wound therearound, so that this hypothetical situation described by the Examiner would never happen in Iwahashi. Moreover, it is pointed out to the Examiner that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. MPEP 2141.02 (citing *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)).

Based on the foregoing, it is clear that the Examiner is mischaracterizing the teachings of Iwahashi as they are directly contradictory to the principle of the subject tape reel wherein the movement of the upper flange and the lower flange is brought about when the cylindrical portion of the hub is deformed in a radial direction (as shown by the broken lines in the Figure below) by winding the tape, so that an inner rib is also deformed (see page 3 of the Rule 132 Declaration filed March 19, 2004 and the corresponding figure therein).

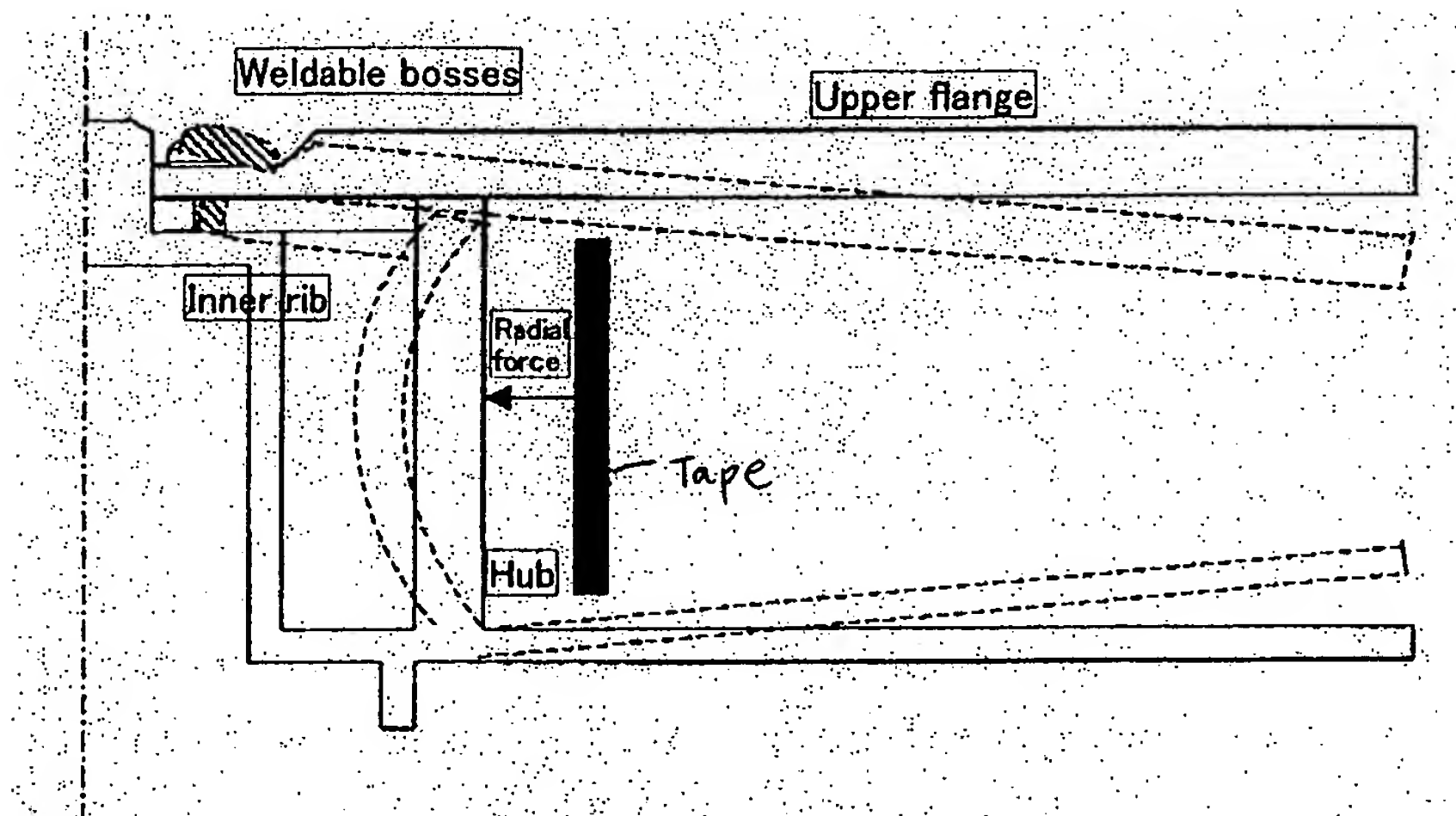
Moreover, Iwahashi discloses a tape reel provided with an upper flange and a connecting portion on an opening side of the hub to prevent the hub from deforming.

In *contradistinction*, an apparatus consistent with the present invention actively applies the deformation of the tape reel hub which results from winding the tape around the hub, and optimizes the distance between the upper flange and the lower flange while winding the tape.

Accordingly, Appellant's invention and Iwahashi are quite clearly different in the underlying or fundamental concept.

In this regard, Iwahashi and Appellant's invention, in fact, have a different structure. On the one hand, Iwahashi discloses a tape reel having a structure designed to prevent the deformation of the hub, wherein the upper flange 17 and the connecting portion 15 are provided at the opening side of the hub, and the center of the upper flange 18 is connected to the upper wall 15, the ribs 21, and the upper end of the outer cylindrical section 11.

In contrast, Appellant's tape reel includes a hub which is, in fact, deformable. More specifically, the upper flange 12 and the hub wall 11a are not welded, as shown in the Figure below which is taken from the Declaration Under 37 C.F.R. § 1.132 which was submitted together with a Response on March 19, 2004.



Rather, the upper flange 12 is just in contact with the upper end of the outer cylindrical section 11a and fastened by the weldable bosses 11e, so as to allow for deformation.

Specifically, when the outer peripheral wall 11a is pressed in the center direction by the winding force of the tape, the outer peripheral wall 11a deforms in the center direction (as shown by the broken lines above) while keeping an angle between the outer peripheral wall 11a and the lower flange 13 since the outer peripheral wall 11a and the upper flange 12 are not connected to each other. Further, since the outer peripheral wall 11a causes the center part 11b (labeled inner rib above) and the rib 11c to deform in the center direction, the center part 11b causes an inclination of the base portion of the weldable bosses 11e so that the upper flange is moved downwardly as shown by the broken lines in the explanatory Figure above. As disclosed in the first full paragraph of page 10 of the subject application, in order to obtain the desired deformation, the rigidity of the hub 11, manner of fixing the upper and lower flanges 12, 13 to the hub, the material of the tape reel 10 and so on are established. Preferably, the rigidity is determined by setting the thickness T of the outer peripheral wall 11a, by setting shape and thickness of the center part 11b and the support walls 11c, and so on.

B. Claims 2 and 3

The Appellant further submits that dependent claims 2 and 3 are patentable as well, at least by virtue of their dependency from independent claim 1. Moreover, with respect to claim 3, for the reasons discussed in detail above, the distances between the upper and lower ends of the outermost layer of the magnetic tape in a width direction and the lower face of the upper flange and the upper face of the lower flange clearly will not remain within a certain range in Iwahashi such that the magnetic tape does not contact either of the upper and lower flanges, and is simply not possible in Iwahashi in view of the fact that Iwahashi expressly discloses that the ribs 21

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prevent the outer cylindrical section from radially and inwardly bending by the pressure exerted by the tape wound therearound.

For all of the above reasons, the rejection of the claims should be reversed and the claims passed to issue.

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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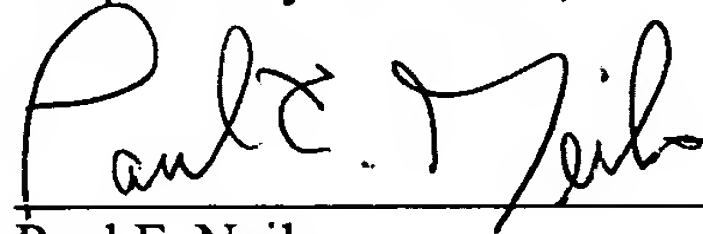
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23373

CUSTOMER NUMBER

Date: January 10, 2005

Respectfully submitted,



Paul F. Neils

Registration No. 33,102

Attorney Docket No.: Q67795

CLAIMS APPENDIX

1. A tape reel comprising:

a hub having a cylindrical shape; and

an upper flange and a lower flange respectively provided at an upper end and a lower end of said hub,

wherein a magnetic tape is wrapped around an outer peripheral surface of said hub, and

means for gradually decreasing a distance between said upper flange and said lower flange outside the outer peripheral surface of the hub, as said magnetic tape is being wrapped around said hub, by deflecting said upper and lower flanges towards each other over an entire circumference thereof.
2. The tape reel as set forth in claim 1, wherein a lower face of said upper flange is inclined upwardly towards an outside in a radial direction of said tape reel, and an upper face of said lower flange is inclined downwardly towards the outside in the radial direction of said tape reel, when said magnetic tape is unwrapped.
3. The tape reel as set forth in claim 1, wherein a distance between an upper end of an outermost layer of the magnetic tape in a width direction and a lower face of said upper flange is defined as H3, and a distance between a lower end of the outermost layer of the magnetic tape in the width direction and an upper face of said lower flange is defined as H4, said distances H3 and H4

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always remaining within a certain range such that the magnetic tape does not contact either of said upper flange and said lower flange.

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EVIDENCE APPENDIX:

Declaration Under 37 C.F.R. § 1.132 filed on March 19, 2004.

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RELATED PROCEEDINGS APPENDIX

None.